REMARKS/ARGUMENTS

Applicant thanks the Primary Examiner for the courtesies extended during the telephone conferences of September 29, 2006 regarding the withdrawal of the finality of the rejection of the above-identified application and the Assistant Examiner for indicating on September 31, 2006 that the finality of the subject rejection has been withdrawn. The status of the application is as follows:

- Claims 1-3, 5, 13-15, and 17-20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu (US 5,953,013) in view of Kaji (US 6,501,468).
- Claim 4 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu in view of Kaji and in further view of Lorenson et al. (US 5,611,025).
- Claim 6 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu in view of Kaji and in further view of Orgino (US 6,762,794).
- Claims 8 and 9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu in view of Kaji and in further view of Palm (US 5,748,199).
- Claims 10 and 11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu in view of Kaji in view of Palm and in further view of Chiu (US 5,606,348).
- Claim 12 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu in view of Kaji and in further view of Chiu.
- Claim 16 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu in view of Kaji and in further view of Holbrook ("Three-Dimensional Stereographic Visual Displays Marketing and Consumer Research").

The rejections to the claims are discussed below.

The First Obviousness Rejection

Claims 1-3, 5, 13-15, and 17-20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu (US 5,953,013) in view of Kaji (US 6,501,468).

Independent claims 1 and 13 recite a method of visualising an internal hollow organ of a subject based on a volumetric scan thereof including, *inter alia*, calculating an image for the left eye from a first view point and an image for the right eye from a different view point, wherein the view points have view directions that are essentially parallel to each other.

In the Office Action, it is conceded that Shimizu does not teach or suggest such aspects. To remedy this deficiency, it is asserted that Kaji teaches these aspects and that it would have been obvious to one of ordinary skill in the relevant art at the time of the invention to combine the teachings of these references to render the subject claims. However, there is no suggestion in Shimizu or Kaji to be combined as such, and the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. MPEP §2143.01, III; *See also In re Mills*, 916 F.2d 680 (Fed. Cir. 1990).

As discussed in the reply to the previous Office Action, Shimizu teaches using an eye-ball transformation technique to stereoscopically observe three-dimensional images, wherein the left and right view points have view directions that meet and cross and, thus, are not parallel to each other. Shimizu also teaches using such technique to construct a three-dimensional image representative of the inside of a organ observed with an endoscope, which is a small camera that is inserted within an organ and near internal surfaces thereof in order to view the interior surfaces of the organ.

Kaji teaches a head mount display for viewing digital images. Kaji discloses that fixing the line of sight directions for the left and right eyes parallel to each other poses no problems when looking at an object at infinity, but creates an unnatural feeling for human perception or a sense of incongruity when looking at an object not at infinity. (See column 3, line 65 – column 7, line 3). As a result, Kaji likewise teaches directing lines of sight for the left and right eyes so that they meet (and, thus, are not parallel) at the same point on a line. (See FIG. 3, and column 6, lines 1-5).

Since Shimizu teaches generating three-dimensional images of surfaces of organs observed at close proximity using non-parallel view directions and Kaji discloses using non-parallel lines of sight for viewing objects at close proximity since parallel lines of sight create unnatural human perception when looking at objects not at infinity, neither Shimizu nor Kaji suggest a desirability to be combined to teach or suggest the subject claims. In view of the foregoing, it is respectfully requested that the rejection of claims 1 and 13 be withdrawn.

Claim 2 further recites that one of the first and the second view points lies on the view path. In the subject Office Action, it is asserted that Shimizu teaches such aspects and FIGS. 11 and 16 are referenced to support this assertion. However, Shimizu does not teach or suggest such aspects in connection with these figures.

In the description of FIG. 16 (column 16, line 51 – column 17, line 41), Shimizu teaches stepping through a three-dimensional image by moving a single view point used for both eyes along a view line direction. At each step, a central projection image from the view point is obtained on a projection plane. The single view point, the view line direction from the view point, and the projection plane are updated in combination as the single view point is moved as a point in the direction of the depth of the three-dimensional original image. Hence, FIG 16 illustrates stepping through a three-dimensional image by moving a single view point along a view line.

In the description of FIG. 11 (column 13, lines 6-33), Shimizu teaches a technique for stereoscopically stepping through the three-dimensional image. Shimizu discloses that the three-dimensional image can be stereoscopically viewed by slightly shifting two view points, one for each eye, left and right of a center view line. Shimizu further discloses moving the two viewpoints in a direction of the center view line as if the two view points were interlocked with each other so that the projection plane is updated on the assumption that one view point is located in the middle between the two view points. Hence, these figures illustrate stepping through the three-dimensional image by moving two view points, which are shifted off the center view line, in unison. Shimizu merely

discloses that the projection plane is updated as if one view point were used; however, Shimizu does not teach or suggest that one of the two view points is on the center line.

From the above, it is readily apparent that Shimizu discloses a single view point embodiment (FIG. 16) in which the single view point moves on a view line and a stereoscopic two view point embodiment (FIG. 11) in which both view points are offset from the view line, and does not teach or suggest two view points wherein one of the view points moves on the view line.. Therefore, this rejection should be withdrawn.

Claims 3 and 5 depend from independent claim 1, and claim 14, 15, and 17-20 depend from claim 13. By virtue of their dependency, these claims are allowable for at least the reasons discussed above in connection with claims 1 and 13. Thus, the rejection of claims 3, 5, 14, 15, and 17-20 should be withdrawn.

The Second Obviousness Rejection

Claim 4 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu in view of Kaji and in further view of Lorenson et al. (US 5,611,025). Claim 4 depends from claim 1, and by virtue of this dependency, claim 4 is allowable for at least the reasons discussed above in connection with claim 1. Accordingly, this rejection should be withdrawn.

The Third Obviousness Rejection

Claim 6 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu in view of Kaji and in further view of Orgino (US 6,762,794).. Claim 6 depends from claim 1, and by virtue of this dependency, claim 6 is allowable for at least the reasons discussed above in connection with claim 1. Therefore, the rejection of claim 6 should be withdrawn.

The Fourth Obviousness Rejection

Claims 8 and 9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu in view of Kaji and in further view of Palm (US 5,748,199). The rejection of claims 8 and 9 should be withdrawn because none of these references suggest the desirablility of the purported combination to render the claimed invention. *See* MPEP §2143.01, III and *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990). In particular, Shimizu and Kaji relate to projecting digital images on a digital projection plane or display, whereas Palm relates to coverting film based motion pictures from two-dimensional to three-dimensional film based formats. Morover, claims 8 and 9 depend from claim 1, and by virtue of this dependency, these claims aer allowable for at least the reasons discussed above in connection with claim 1. Accordingly, this rejection should be withdrawn.

The Fifth Obviousness Rejection

Claims 10 and 11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu in view of Kaji in view of Palm and in further view of Chiu (US 5,606,348). Claims 10 and 11 depend from claim 1, and by virtue of their dependency, these claims are allowable for at least the reaons discussed above. Therefore, this rejection should be withdrawn.

The Sixth Obviousness Rejection

Claim 12 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu in view of Kaji and in further view of Chiu. Claim 12 depends from independent claim 1. By virtue of this dependency, claim 12 is allowable for at least the reasons discussed above. It is respectfully requested that this rejection be withdrawn.

The Seventh Obviousness Rejection

Claim 16 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu in view of Kaji and in further view of Holbrook ("Three-Dimensional Steriographic Visual Displays Marketing and Consumer Research"). This rejection should be withdrawn since claim 16 depends from independent claim 1, which is allowable for at least the reason set forth above. Accordingly, this rejection should be withdrawn.

Conclusion

In view of the foregoing, it is submitted that claims 1-6 and 8-20 distinguish patentably and non-obviously over the prior art of record. An early indication of allowability is earnestly solicited.

Respectfully submitted,
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